II. CLAIM AMENDMENTS

1. (Currently amended) A communications system comprising:

a central node;

at least one remote node adapted to receive information transmitted from the central node over a broadcast link; and

a communications link comprising a time division multiple access link using bi-BPSK modulation, with a first channel operating at a lower data rate to achieve a high signal-to-noise ratio, and a second channel providing bandwidth-on-demand for transferring only user data, the second channel ~~being capable of~~ operating at a higher data rate and lower signal-to-noise ratio than the first channel, the communications link ~~adapted to convey~~ conveying information from the remote node to the central node, the central node ~~being adapted to provide~~ providing slot timing and link synchronization via said first channel and to dynamically tailor a remote node transmit power control and a bandwidth as requested by the remote node for conveying information over the communications link.

2. (Previously presented) The system of claim 1 wherein the broadcast link transfers link maintenance information over the one channel from the central node to each of the remote nodes.

3. (Original) The system of claim 2 wherein the link maintenance information is data used to maintain and manage the broadcast link and the communications link.

4. (Previously presented) The system of claim 1 wherein the broadcast link provides for transmission of link maintenance information from the central node to each of the at least one remote nodes.

5. (Original) The system of claim 1 wherein the communications link comprises a time division multiple access link using a multi-phase shift key waveform.

6. (Cancelled)

7. (Cancelled)

8. (Currently amended) The system of claim 1 wherein the one channel ~~is adapted to provide~~ provides slot timing, communications link synchronization and slot management functions, the slot management functions being independent of the other channel.

9. (Currently amended) The system of claim 1 wherein the one channel ~~is adapted to provide~~ provides all management functions for the communications link and the other channel ~~is adapted to meet~~ meets remote node bandwidth needs on demand.

10. (Cancelled)

11. (Currently amended) The system of claim 1 wherein the other channel ~~is adapted to adjust~~ adjusts wideband channel performance for transfer of user data on a slot by slot basis.

12. (Currently amended) A communications system comprising:

a central node ~~adapted to transmit~~ that transmits information over a broadcast link to at least one remote node; and

a time division multiple access link using bi-BPSK modulation to convey information from the remote node to the central node, the link including a first channel operating at a lower data rate to achieve a high signal-to-noise ratio to provide all link maintenance and management functions including slot timing and link synchronization for the broadcast link and time division multiple access link, and a second channel ~~adapted to operate~~ that operates at high data rates and lower signal-to-noise ratio than the first channel to transfer only user data and to meet bandwidth needs on demand of individual remote nodes.

13. (Original) The system of claim 12 wherein the first channel is an embedded high signal-to-noise ratio tracking channel.

14. (Currently amended) The system of claim 12 wherein the second channel ~~is adapted to provide~~ provides a dedicated

conduit for transmitting user data from the remote node to the central node.

15. (Currently amended) The system of claim 12 wherein the second channel is a wideband channel ~~adapted to be~~ that is rate adjusted for an individual remote node to accommodate a required data bandwidth for the remote node.

16. (Currently amended) The system of claim 15 wherein the time division multiple access link ~~can adjust~~ adjusts a performance of the wideband channel on a slot by slot basis.

17. (Currently amended) A method of dynamically altering transmit power control and bandwidth transmission requirements of a remote node in a communications network including a plurality of remote nodes, the method comprising the steps of:

acquiring link management information transmitted from a central node to the remote node over a broadcast link;

requesting a new remote node transmit power control and a new transmit data bandwidth from the central node by sending a request from the remote node to the central node over a time division multiple access communications link using a multi-phase shift key waveform, wherein a high signal-to-noise ratio channel in the link is used to provide the remote node transmit power control with slot timing and link synchronization, and a wideband channel operative at a lower signal-to-noise ratio in each slot of the link is

~~adapted to be~~ rate adjusted to meet the transmit data bandwidth needs of the remote node on demand; and

implementing the change ~~one~~ in a remote node slot time subsequent to the request.

18. (Cancelled)

19. (Previously presented) The method of claim 17 wherein the step of implementing the change further comprises the step of dynamically configuring the wideband channel to accommodate the new transmit data bandwidth on a slot by slot basis.

20. (Previously presented) The method of claim 17 further comprising the step of dynamically assigning one or more slots to a new remote node entering the network.

21. (Currently amended) The system of claim 1 further comprising the high signal to noise ratio channel used to maintain TDMA slots timing, link synchronization and slot management, wherein the slot management is independent of a data transport channel, where the data transport channel is a separate user channel used as a dedicated conduit for transport of user data that ~~can be~~ is dynamically ~~adapted~~ adjusted to provide different power and rate control at each slot to provide optimal performance based on user needs and a link environment.

22. (Currently amended) The method of claim 17 further comprising ~~including~~ only two separate channels in each slot, one channel being the high signal to noise ratio channel and the other being the wideband channel.

23. (Previously presented) The method of claim 22 further comprising maintaining TDMA slot timing, link synchronization and slot management on the high signal-to-noise ratio channel and transporting data only on the wideband channel.